WHAT IS CLAIMED:

1   1. A method for use in a packet server, the method comprising the steps of:

2   receiving a stream of packets; and

3   determining that number of packets from the received packet stream that are lost

4   over a time period;

5   determining a number of expected packets to be lost for the received packet

6   stream in accordance with a random loss model; and

7   determining a burst ratio from the determined number of packets lost to the

8   number of expected packets to be lost.

1   2. The method of claim 1 wherein the step of determining the number of packets

2   lost determines an average length of observed bursts in the received packet stream over

3   the time interval.

1   3. The method of claim 2 wherein the step of determining the number of expected

2   packets to be lost determines an average length of bursts expected for a random loss

3   packet-based network.

1   4. The method of claim 3 wherein the step of determining the burst ratio

2   determines a ratio of the average length of observed bursts in the received packet stream

3   over the time interval to the average length of bursts expected for a random loss packet-

4   based network.

1   5. A method for use in a packet server, the method comprising the steps of:

2   receiving a stream of packets; and

3   determining a burst ratio for the received packet stream, wherein the burst ratio

4   equals $1 / (1 + \alpha - \beta)$, wherein α is a probability of losing packet n if packet $n - 1$ was

5   found and β represents a probability of losing packet n if packet $n - 1$ was lost.

1   6. A method for use in a packet server, the method comprising the steps of:

2   receiving a stream of packets; and

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3   determining a burst ratio for the received packet stream; and

4   changing the processing for the received packet stream as a function of the

5 determined burst ratio.

1   7. The method of claim 6 wherein the changing step alters a priority level for the

2 received packet stream.

1   8. The method of claim 6 wherein the determining the burst ratio step includes the

2 steps of:

3   determining that number of packets from the received packet stream that are lost

4 over a time period; and

5   determining a number of expected packets to be lost for the received packet

6 stream in accordance with a random loss model.

1   9. The method of claim 6 wherein the determining the burst ratio step includes the

2 steps of:

3   determining an average length of observed bursts in the received packet stream

4 over a time interval;

5   determining an average length of bursts expected for a random loss packet-based

6 network; and

7   determining the burst ratio from the average length of observed bursts and the

8 average length of bursts for the random loss packet network.

1   10. The method of claim 6 wherein the determining the burst ratio step determines

2 the burst ratio from $1/(1+\alpha-\beta)$, wherein α is a probability of losing packet n if packet n

3 - 1 was found and β represents a probability of losing packet n if packet $n - 1$ was lost.

1   11. A method for use in a packet server, the method comprising the steps of:

2   receiving a stream of packets; and

3   determining a burst ratio for the received packet stream; and

4   associating the determined burst ratio as a figure of merit for the packet server for

5 use in traffic planning.

1   12. The method of claim 11 wherein the determining the burst ratio step includes

2   the steps of:

3   determining that number of packets from the received packet stream that are lost

4   over a time period; and

5   determining a number of expected packets to be lost for the received packet

6   stream in accordance with a random loss model.

1   13. The method of claim 11 wherein the determining the burst ratio step includes

2   the steps of:

3   determining an average length of observed bursts in the received packet stream

4   over a time interval;

5   determining an average length of bursts expected for a random loss packet-based

6   network; and

7   determining the burst ratio from the average length of observed bursts and the

8   average length of bursts for the random loss packet network.

1   14. The method of claim 11 wherein the determining the burst ratio step

2   determines the burst ratio from $1 / (1 + \alpha - \beta)$, wherein α is a probability of losing packet

3   n if packet $n - 1$ was found and β represents a probability of losing packet n if packet $n -$

4   1 was lost.

1   15. A method comprising the steps of:

2   testing a packet server in such a way as to determine a burst ratio; and

3   associating the burst ratio as a figure of merit for the packet server.

1   16. The method of claim 15 wherein the testing step determines the burst ratio by:

2   determining that number of packets from a received packet stream that are lost

3   over a time period; and

4   determining a number of expected packets to be lost for the received packet

5   stream in accordance with a random loss model.

1   17. The method of claim 15 wherein the testing step determines the burst ratio by:

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2   determining an average length of observed bursts in a received packet stream over

3   a time interval;

4   determining an average length of bursts expected for a random loss packet-based

5   network; and

6   determining the burst ratio from the average length of observed bursts and the

7   average length of bursts for the random loss packet network.

1   18. The method of claim 15 wherein the testing step determines the burst ratio $1 / $

2    $(1 + \alpha - \beta)$, wherein α is a probability of losing packet n if packet $n-1$ was found and β

3   represents a probability of losing packet n if packet $n-1$ was lost.

1   19. A packet server comprising:

2   a receiver for receiving a stream of packets; and

3   a processor for (a) determining that number of packets from the received packet

4   stream that are lost over a time period, (b) determining a number of expected packets to

5   be lost for the received packet stream in accordance with a random loss model, and (c)

6   determining a burst ratio from the determined number of packets lost to the number of

7   expected packets to be lost.

1   20. The apparatus of claim 19 wherein the processor determines the number of

2   packets lost by determining an average length of observed bursts in the received packet

3   stream over the time interval.

1   21. The apparatus of claim 20 wherein the processor determines the number of

2   packets expected to be lost by determining an average length of bursts expected for a

3   random loss packet-based network.

1   22. The apparatus of claim 21 wherein the processor determines the burst ratio by

2   a ratio of the average length of observed bursts in the received packet stream over the

3   time interval to the average length of bursts expected for a random loss packet-based

4   network.

1   23. A packet server comprising:

2   a receiver for receiving a stream of packets; and

3   a processor for a burst ratio for the received packet stream, wherein the burst ratio

4   equals $1 / (1 + \alpha - \beta)$, wherein α is a probability of losing packet n if packet $n-1$ was found

5   and β represents a probability of losing packet n if packet $n-1$ was lost.

1   24. A packet server comprising:

2   a receiver for receiving a stream of packets; and

3   a processor for (a) determining a burst ratio for the received packet stream, and (b)

4   changing the processing for the received packet stream as a function of the determined

5   burst ratio.

1   25. The apparatus of claim 24 wherein the processor changes the processing by

2   altering a priority level for the received packet stream.

1   26. The apparatus of claim 24 wherein the processor determines the burst ratio by

2   determining that number of packets from the received packet stream that are lost over a

3   time period, and determining a number of expected packets to be lost for the received

4   ·packet stream in accordance with a random loss model.

1   27. The apparatus of claim 24 wherein the processor determines the burst ratio by

2   determining an average length of observed bursts in the received packet stream over a

3   time interval, and determining an average length of bursts expected for a random loss

4   packet-based network, and determining the burst ratio from the average length of

5   observed bursts and the average length of bursts for the random loss packet network.

1   28. The apparatus of claim 24 wherein the processor determines the burst ratio

2   from $1 / (1 + \alpha - \beta)$, wherein α is a probability of losing packet n if packet $n-1$ was found

3   and β represents a probability of losing packet n if packet $n-1$ was lost.